

(19)



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(11)

EP 0 831 474 A3

(12)

EUROPEAN PATENT APPLICATION

(88) Date of publication A3:
26.08.1998 Bulletin 1998/35

(51) Int Cl.⁶: **G11B 11/10**

(43) Date of publication A2:
25.03.1998 Bulletin 1998/13

(21) Application number: **97307216.8**

(22) Date of filing: **17.09.1997**

(84) Designated Contracting States:
**AT BE CH DE DK ES FI FR GB GR IE IT LI LU MC
 NL PT SE**

(30) Priority: **19.09.1996 JP 248006/96**
12.09.1997 JP 248785/97

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(54) **Magneto-optical medium and signal reproducing method and apparatus**

(57) A magneto-optical recording medium includes a first magnetic layer of which the magnetic wall moves and which contributes to reproduction, a third magnetic layer in which information is accumulated, and a second magnetic layer disposed between the first and third magnetic layers and having a lower Curie temperature than those of the first and third magnetic layers. The following is satisfied at the lowest temperature T_s whereat the exchange-coupling between the first and third magnetic layers is cut:

$$|k_1 * d\sigma w_1/dT| > 2 * Ms_1 * Hw_1 > |k_2 * d\sigma w_1/dT|$$

$$|k_1 * d\sigma w_3/dT| > 2 * Ms_3 * Hw_3$$

σw_1 ... magnetic wall energy density of the first magnetic layer represented by cgs unit system

Ms_1 ... saturation magnetization of the first magnet-

ic layer represented by cgs unit system
 Hw_1 ... magnetic wall coercivity of the first magnetic layer represented by cgs unit system
 σw_3 ... magnetic wall energy density of the third magnetic layer represented by cgs unit system
 Ms_3 ... saturation magnetization of the third magnetic layer represented by cgs unit system
 Hw_3 ... magnetic wall coercivity of the third magnetic layer represented by cgs unit system
 k_1 ... one temperature gradient of a temperature profile formed on the medium
 k_2 ... the other temperature gradient of the temperature profile formed on the medium.

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FIG. 1A

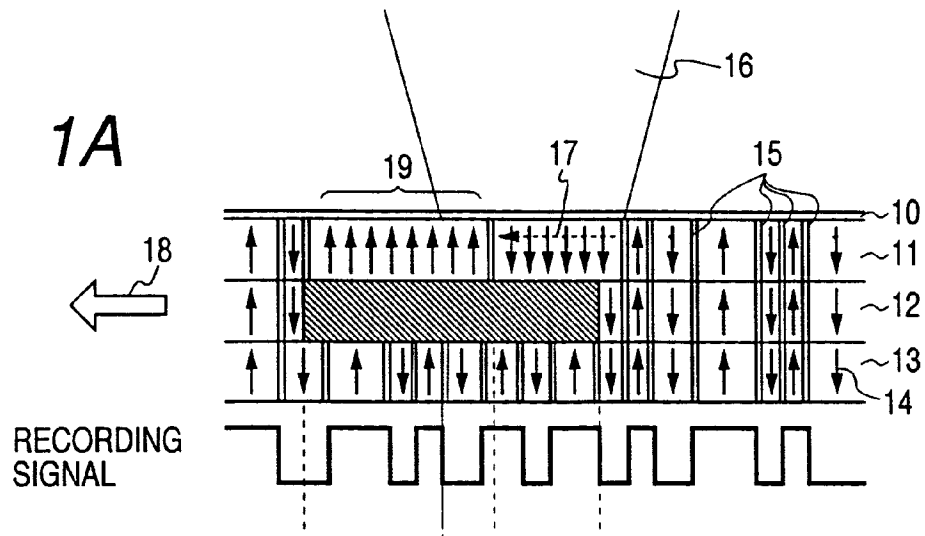


FIG. 1B

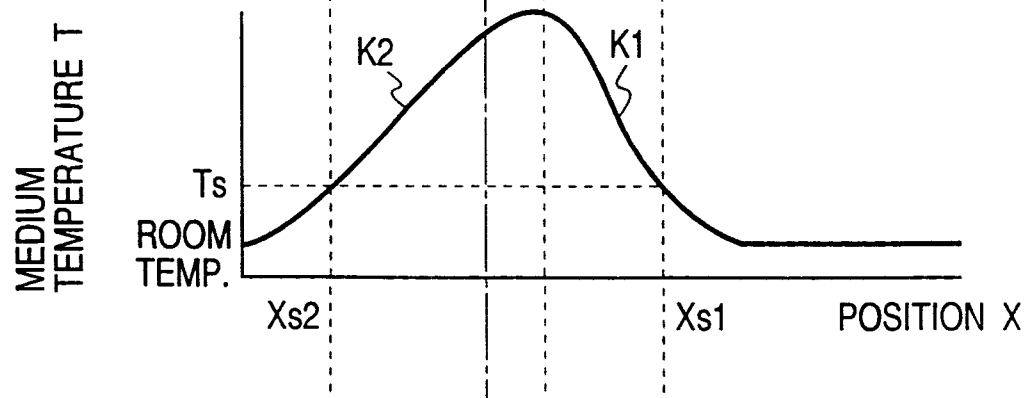
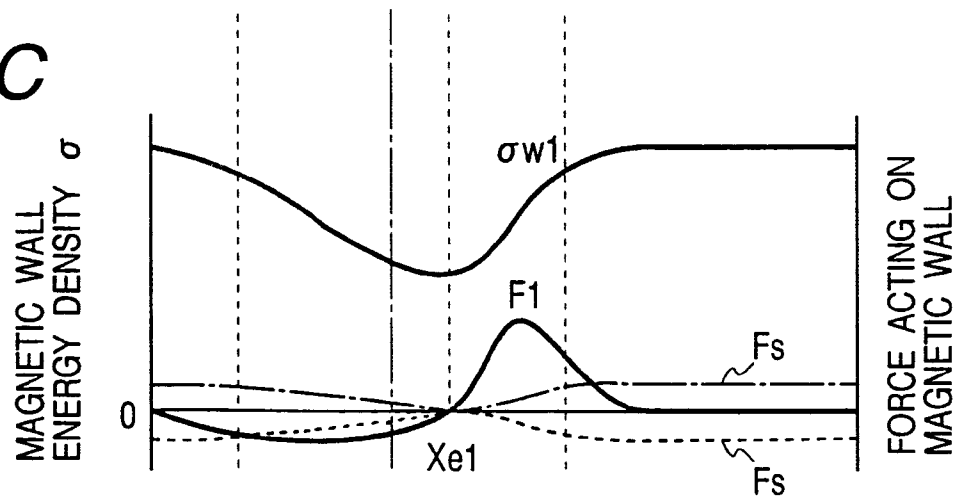


FIG. 1C





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EUROPEAN SEARCH REPORT

Application Number
EP 97 30 7216

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Place of search		Date of completion of the search	Examiner
THE HAGUE		26 June 1998	Nanos, A
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			

EPO FORM 1503 03.82 (P04C01)